Application Serial No. 09/857,402

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Amendments to the Claims

This listing of claims replaces all prior listing of claims, and listing of claims in the application.

Listing of Claims

- 1-14. (Cancelled)
- 15. (Previously Presented) A vaccine formulation suitable for mucosal administration comprising:
 - (a) a mixture of a first vaccine antigen which is Hepatitis B virus surface antigen (HBsAg), and
 - (b) a second vaccine antigen which is a viral nucleocapsid or a virus-like particle; wherein said HBsAg has an adjuvant effect on the second vaccine antigen, and wherein said first and second vaccine antigens are each present from 0.001mg to 1mg.
- 16. (Previously Presented) The vaccine formulation according to claim 15, wherein the viral nucleocapsid is the nucleocapsid antigen of Hepatitis B virus.
- 17. (Previously Presented) The vaccine formulation according to claim 15, wherein the virus-like particle is the virus-like particle antigen of Human Papilloma virus (HPV).
- 18. (Previously Presented) The vaccine formulation according to claim 15, wherein the viral nucleocapsid is the nucleocapsid antigen of Hepatitis C virus.

19-20. (Cancelled)

21. (Previously Presented) The vaccine formulation according to claim 15, wherein the vaccine formulation is suitable for nasal administration.

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- 22. (Previously Presented) The vaccine formulation according to claim 15, wherein the vaccine formulation is suitable for use as a therapeutic vaccine against Hepatitis B virus (HBV) infection.
- 23. (Previously Presented) The vaccine formulation according to claim 15, wherein the vaccine formulation is suitable for use as a preventive vaccine against Hepatitis B virus (HBV) infection.
- 24. (Cancelled)
- 25. (Previously Presented) The vaccine formulation according to claim 17, wherein the vaccine formulation is suitable for use as a preventive vaccine against Human Papilloma virus (HPV) infection.
- 26. (Previously Presented) The vaccine formulation according to claim 18, wherein the vaccine formulation is suitable for use as a therapeutic vaccine against Hepatitis C virus (HCV) infection.
- 27. (Previously Presented) The vaccine formulation according to claim 17, wherein the vaccine formulation is suitable for use as a therapeutic vaccine against Human Papilloma virus (HPV) infection.

28-37. (Cancelled)

- 38. (Previously Presented) A vaccine formulation suitable for mucosal administration, comprising:
 - (a) a mixture of a first vaccine antigen which is Hepatitis B virus surface antigen (HBsAg), and
 - (b) a second vaccine antigen and a third vaccine antigen, wherein the vaccine antigens are each present from 0.001mg to 1mg.

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- 39. (Previously Presented) The vaccine formulation according to claim 38, wherein the second vaccine antigen is an antigen of a viral nucleocapsid or a virus-like particle.
- 40. (Previously Presented) The vaccine formulation according to claim 39, wherein the virus-like particle is the virus-like particle antigen of Human Papilloma Virus (HPV).
- 41. (Previously Presented) The vaccine formulation according to claim 39, wherein the third vaccine antigen is Hepatitis B virus core antigen (HBcAg).
- 42. (Currently Amended) A method for administering a vaccine formulation to a mammal for generating an immune response antigen which is a viral nucleocapsid or a virus like particle, the method comprising administering mucosally to the mammal a vaccine formulation comprising:
 - (a) a mixture of a first vaccine antigen which is Hepatitis B virus surface antigen (HBsAg), and
 - (b) a second vaccine antigen which is a viral nucleocapsid or a virus-like particle;

wherein said HBsAg has an adjuvant effect on the second vaccine antigen, and wherein said first and second vaccine antigen are each present from 0.001 mg to 1 mg according to claim 15.